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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,945

05/22/2006

Ralf Mayer

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9528

25461 7590 08/17/2009  
SMITH, GAMBRELL & RUSSELL  
SUITE 3100, PROMENADE II  
1230 PEACHTREE STREET, N.E.  
ATLANTA, GA 30309-3592

EXAMINER

STALDER, MELISSA A

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

08/17/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/595,945	<b>Applicant(s)</b> MAYER, RALF	
	<b>Examiner</b> MELISSA STALDER	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1 and 3 are rejected under 35 U.S.C. 102(a) as being anticipated by Haas (WO 03/049849). Haas teaches the production of catalyst where acidic metal salt solutions are precipitated by means of a basic solution. A suspension is formed and the catalysts are shaped through freezing and then freeze-drying followed by calcination (abstract; pg. 3, lines 1-11) (the freeze drying process involves sublimation of a liquid with the use of a vacuum pump). Haas does not teach the appearance of precipitates and instead teaches that the material in suspension that is then frozen can be shaped and identified (pg. 6, line 18-pg. 7, line 10; claims; pg. 2, line 24-pg. 3, line 11).

Regarding claim 3, Haas teaches examining the shaped bodies for their catalytic applications (pg. 24, lines 7-8).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Kirchnerova, Jitka, Synthesis and characterization of perovskite catalysts, Solid State Ionics 12 (1999) 307-317). Kirchnerova teaches the production of a perovskite catalyst where a slurry of lanthanum hydroxide and metal nitride is mixed with a hydroxide slurry to form a precipitate and then a suspension. The suspension is spray-frozen, freeze-dried and calcined (the freeze drying process involves sublimation of a liquid with the use of a vacuum pump). The resulting catalyst is identified (abstract; pg. 307, 2nd column; p. 310). Kirchnerova teaches that freezing should be done as quickly as possible to preserve solution homogeneity (p. 308, 2nd column). The catalytic activity is examined in the results section of the paper.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas (WO 03/049849) as in claims 1 and 3 above, further in view of Allison (US 6,723,886).

Allison teaches reaction vessels running in parallel surrounded by a cooling medium (figures 7 and 8). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the process of Haas with the vessels of Allison

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because the parallel reactors are able to produce a greater amount of end product yet still be operated efficiently as they can all be cooled together. Although Allison teaches the production of a different product, use of reactor vessels in parallel instead of individually or consecutively is well known in the art and for commercial production of reactants.

Claims 2 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchnerova, Jitka, Synthesis and characterization of perovskite catalysts, Solid State Ionics 12 (1999) 307-317) as in claims 1 and 3 above, further in view of Allison (US 6,723,886).

Allison teaches reaction vessels running in parallel surrounded by a cooling medium (figures 7 and 8). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the process of Haas with the vessels of Allison because the parallel reactors are able to produce a greater amount of end product yet still be operated efficiently as they can all be cooled together. Although Allison teaches the production of a different product, use of reactor vessels in parallel instead of individually or consecutively is well known in the art and for commercial production of reactants.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELISSA STALDER whose telephone number is

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(571)270-5832. The examiner can normally be reached on Monday-Friday, 8:00-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Melvin Curtis Mayes can be reached on 571-272-1234. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MS  
08-05-09

/Melvin Curtis Mayes/  
Supervisory Patent Examiner, Art Unit 1793